

=> fil reg
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STRUCTURE FILE UPDATES: 2 MAR 2008 HIGHEST RN 1006303-40-7
 DICTIONARY FILE UPDATES: 2 MAR 2008 HIGHEST RN 1006303-40-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

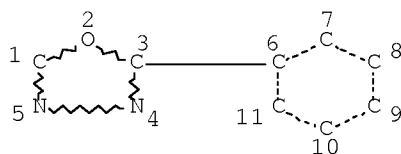
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 conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
 predicted properties as well as tags indicating availability of
 experimental property data in the original document. For information
 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=> d sta que 122

L15 1959 SEA FILE=REGISTRY ABB=ON PLU=ON (16.536.5 AND 46.150.18)/RID
 AND PMS/CI
 L16 59 SEA FILE=REGISTRY ABB=ON PLU=ON (16.536.6 AND 46.150.18)/RID
 AND PMS/CI
 L17 2 SEA FILE=REGISTRY ABB=ON PLU=ON (16.536.7 AND 46.150.18)/RID
 AND PMS/CI
 L18 2012 SEA FILE=REGISTRY ABB=ON PLU=ON (L15 OR L16 OR L17)
 L19 STR



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 DEFAULT ECLEVEL IS LIMITED

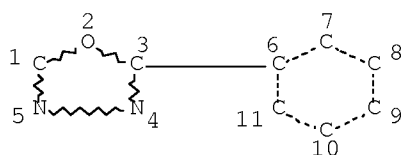
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 RSPEC 6 3
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

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 L22 103 SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND 591.49.57/RID

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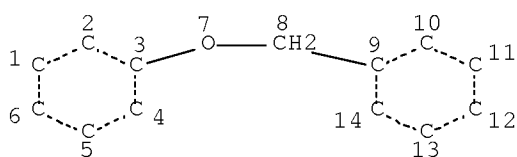
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 AND PMS/CI
 L17 2 SEA FILE=REGISTRY ABB=ON PLU=ON (16.536.7 AND 46.150.18)/RID
 AND PMS/CI
 L18 2012 SEA FILE=REGISTRY ABB=ON PLU=ON (L15 OR L16 OR L17)
 L19 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
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 L35 STR



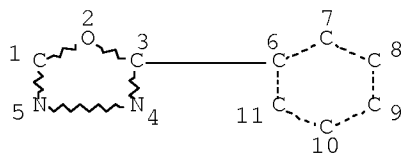
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 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
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100.0% PROCESSED 69 ITERATIONS 28 ANSWERS
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 AND PMS/CI
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 AND PMS/CI
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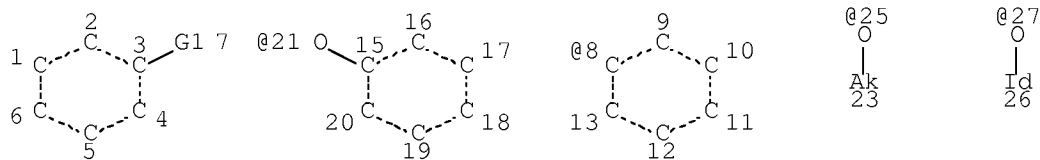


NODE ATTRIBUTES:
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GRAPH ATTRIBUTES:
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 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

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L40 STR



Ak @28 Id @29

VAR G1=8/21/25/27/28/29
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CONNECT IS E1 RC AT 28
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1 15 8
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE
L42 715 SEA FILE=REGISTRY SUB=L21 SSS FUL L40

100.0% PROCESSED 1903 ITERATIONS 715 ANSWERS
SEARCH TIME: 00.00.01

=> fil uspatful
FILE 'USPATFULL' ENTERED AT 09:34:44 ON 03 MAR 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 28 Feb 2008 (20080228/PD)
FILE LAST UPDATED: 28 Feb 2008 (20080228/ED)
HIGHEST GRANTED PATENT NUMBER: US7337473
HIGHEST APPLICATION PUBLICATION NUMBER: US2008052798
CA INDEXING IS CURRENT THROUGH 28 Feb 2008 (20080228/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 28 Feb 2008 (20080228/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2007
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2007

=> d bib abs hitstr l54

L54 ANSWER 1 OF 1 USPATFULL on STN
AN 2005:325085 USPATFULL Full-text
TI Luminescent polymers and light emitting devices
IN Nakaya, Tadao, Tokyo, JAPAN
Tobita, Michiaki, Tokyo, JAPAN
Eto, Naonobu, Kanagawa, JAPAN
Kodera, Toshihiro, Tokyo, JAPAN
PI US 2005282998 A1 20051222
AI US 2003-532974 A1 20031024 (10)
WO 2003-JP13597 20031024
20050428 PCT 371 date
PRAI JP 2002-315029 20021029
DT Utility
FS APPLICATION
LREP RADER FISHMAN & GRAUER PLLC, LION BUILDING, 1233 20TH STREET N.W., SUITE
501, WASHINGTON, DC, 20036, US
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 31 Drawing Page(s)
LN.CNT 1079
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides luminescent polymers which can easily be formed into a film or a sheet, and which can easily be incorporated into a luminescent element. The present invention also provides luminescent elements which can be produced easily by the employment of the luminescent polymers. One of the luminescent polymers has a repeating unit represented by formula (1): ##STR1## wherein Ar is a group represented by one of formulas (2)-(5); B is -Y--Ar.sup.1, --Y--R, or a hydrogen atom, wherein Y is a single bond or --O--, Ar.sup.1 is a group represented by formula (6), and R is an alkyl group or an alkenyl group; n denotes an integer from 1 to 4, wherein Bs may be the same or different from each other when n is 2, 3, or 4, at least one of the Bs in formula (1) must be --Y--Ar.sup.1 or --Y--R when B or Bs in formula (2), (3), (4) or (5) are a hydrogen atom or hydrogen atoms, and at least one of the Bs in the group represented by any one of formulas (2)-(5) must be --Y--Ar.sup.1 or --Y--R when B or Bs bonded to the benzene ring in formula (1) are a hydrogen atom or hydrogen atoms.

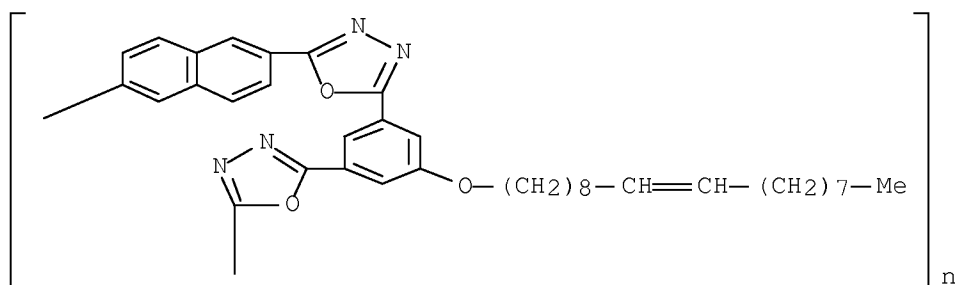
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 688062-73-9F

(luminescent polymers for light emitting devices)

RN 688062-73-9 USPTAFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[(9-octadecenyl)oxy]-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-2,6-naphthalenediyl] (9CI) (CA INDEX NAME)

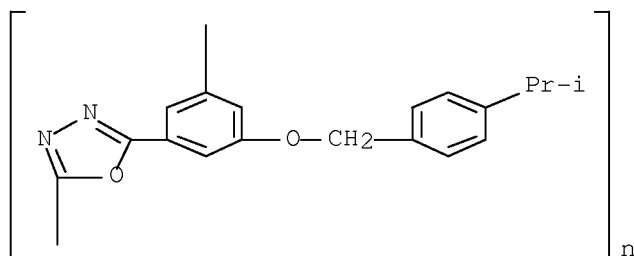


IT 688062-50-2F 688062-53-5P 688062-55-7P
688062-64-8P 688062-66-0P 688062-69-3P
690272-63-4P

(luminescent polymers for light emitting devices)

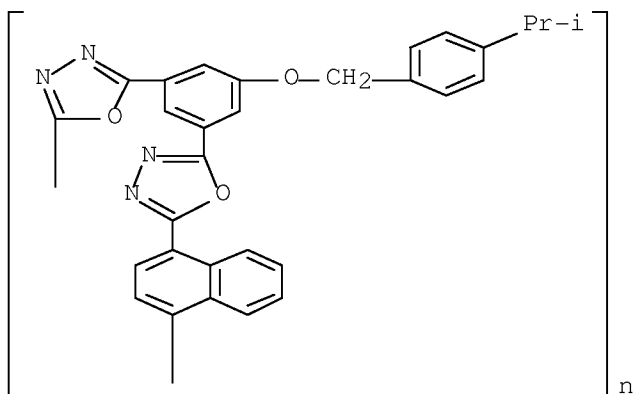
RN 688062-50-2 USPTAFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[[4-(1-methylethyl)phenyl]methoxy]-1,3-phenylene]] (9CI) (CA INDEX NAME)



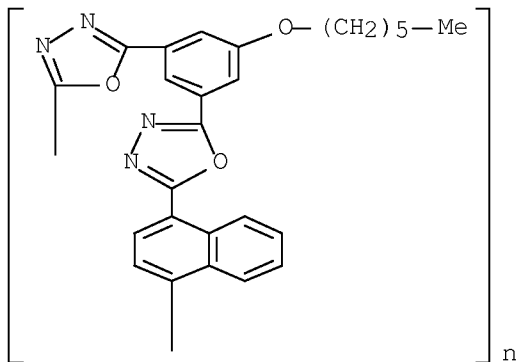
RN 688062-53-5 USPTAFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[[4-(1-methylethyl)phenyl]methoxy]-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-1,4-naphthalenediyl] (9CI) (CA INDEX NAME)



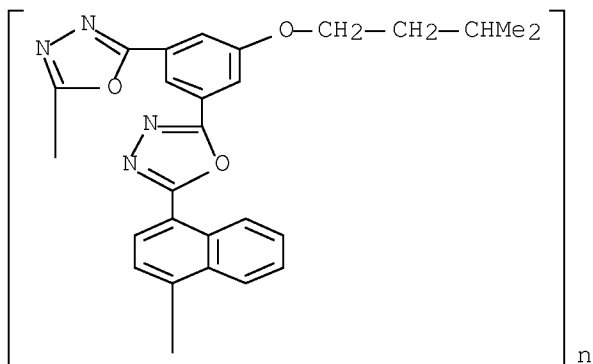
RN 688062-55-7 USPATFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(hexyloxy)-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-1,4-naphthalenediyl] (9CI) (CA INDEX NAME)



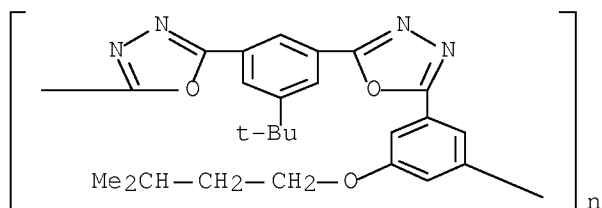
RN 688062-64-8 USPATFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(3-methylbutoxy)-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-1,4-naphthalenediyl] (9CI) (CA INDEX NAME)



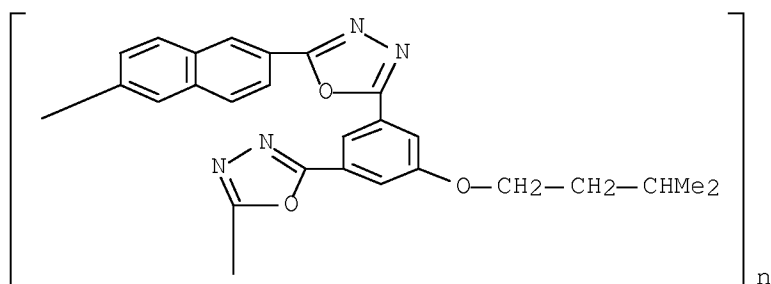
RN 688062-66-0 USPATFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(1,1-dimethylethyl)-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl[5-(3-methylbutoxy)-1,3-phenylene]] (9CI) (CA INDEX NAME)



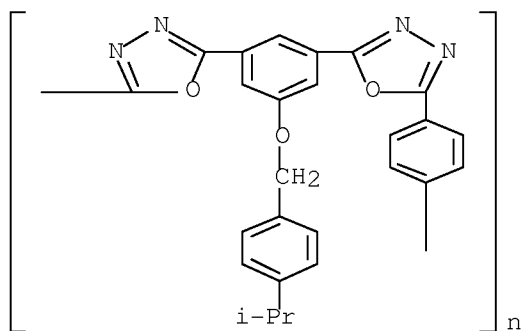
RN 688062-69-3 USPATFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(3-methylbutoxy)-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-2,6-naphthalenediyl] (9CI) (CA INDEX NAME)



RN 690272-83-4 USPATFULL

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[[4-(1-methylethyl)phenyl]methoxy]-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-1,4-phenylene] (9CI) (CA INDEX NAME)



=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 09:34:56 ON 03 MAR 2008

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FILE COVERS 1907 - 3 Mar 2008 VOL 148 ISS 10
FILE LAST UPDATED: 2 Mar 2008 (20080302/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d bib abs hitstr retable tot 153

L53 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:392509 HCAPLUS Full-text

DN 140:397451

TI Luminescent polymers for light emitting devices

IN Nakaya, Tadao; Tobita, Michiaki; Eto, Naonobu

; Kadera, Toshihiro

PA Hirose Engineering Co., Ltd., Japan

SO PCT Int. Appl., 100 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004039866	A1	20040513	WO 2003-JP13597	20031024 <--
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	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
	AU 2003275638	A1	20040525	AU 2003-275638	20031024 <--
	EP 1586600	A1	20051019	EP 2003-758858	20031024 <--
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
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	US 2005282998	A1	20051222	US 2005-532974	20050428 <--
PRAI	JP 2002-315029	A	20021029	<--	
	WO 2003-JP13597	W	20031024	<--	
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to luminescent polymers characterized by comprising repeating units represented by the general formula I wherein Ar is a group represented by one of the general formulas II-V; B is -Y-Ar1, -Y-R, or hydrogen; Y is a single bond or -O-; Ar1 is a group represented by the general formula VI; R is alkyl or alkenyl; nB's may be the same or different from each other; when B's in a group represented by one of the general formulas II to V are each hydrogen, at least one of B's in the general formula I is -Y-Ar1 or -Y-R, while when B's bonded to the benzene nucleus in the general formula I are each hydrogen, at least one of B's in a group represented by one of the general formulas II to V is -Y-Ar1 or -Y-R; and n is an integer of 1 to 4 and light-emitting devices made by using the same.

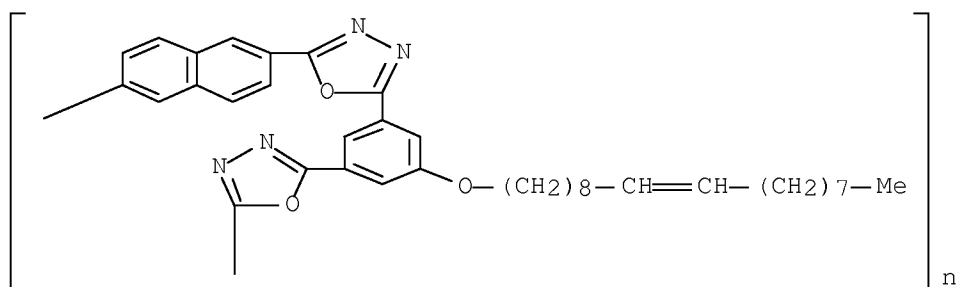
IT 688062-73-9F

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

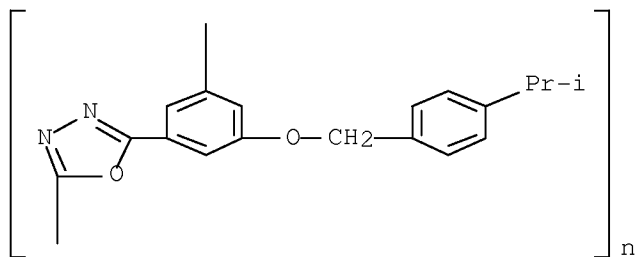
(luminescent polymers for light emitting devices)

RN 688062-73-9 HCAPLUS

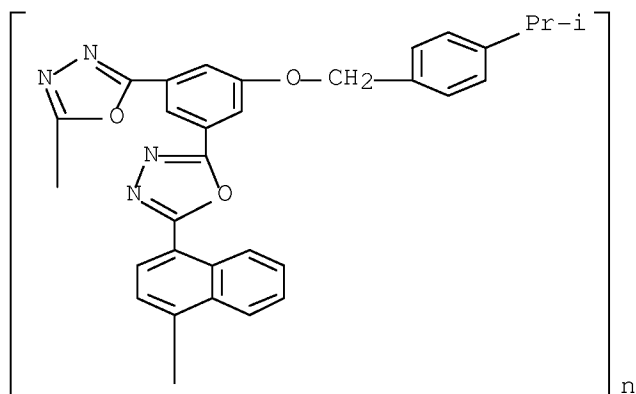
CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[(9-octadecenyl)oxy]-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-2,6-naphthalenediyl] (9CI) (CA INDEX NAME)



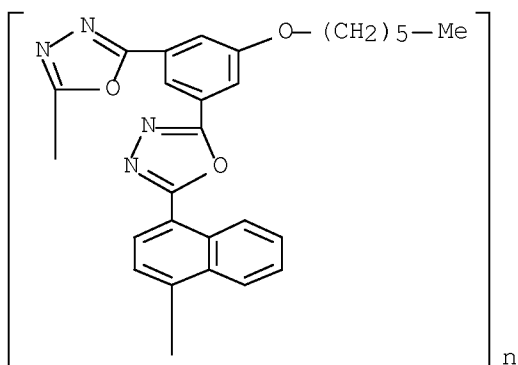
IT 688062-50-2P 688062-53-5P 688062-55-7P
 688062-64-8P 688062-66-0P 688062-69-3P
 690272-83-4P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (luminescent polymers for light emitting devices)
 RN 688062-50-2 HCAPLUS
 CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[[4-(1-methylethyl)phenyl]methoxy]-1,3-
 phenylene]] (9CI) (CA INDEX NAME)



RN 688062-53-5 HCAPLUS
 CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[[4-(1-methylethyl)phenyl]methoxy]-1,3-
 phenylene]-1,3,4-oxadiazole-2,5-diyl-1,4-naphthalenediyl] (9CI) (CA INDEX
 NAME)

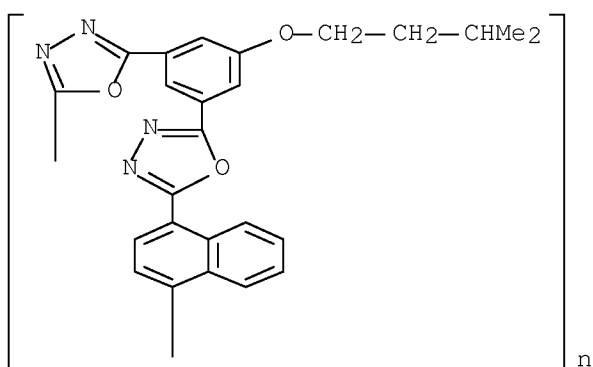


RN 688062-55-7 HCAPLUS
 CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(hexyloxy)-1,3-phenylene]-1,3,4-
 oxadiazole-2,5-diyl-1,4-naphthalenediyl] (9CI) (CA INDEX NAME)



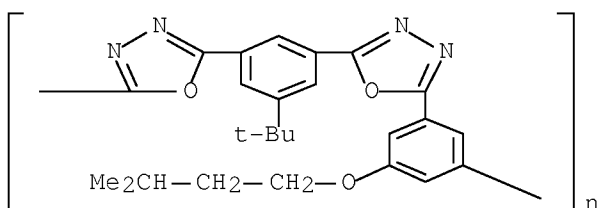
RN 688062-64-8 HCAPLUS

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(3-methylbutoxy)-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-1,4-naphthalenediyl] (9CI) (CA INDEX NAME)



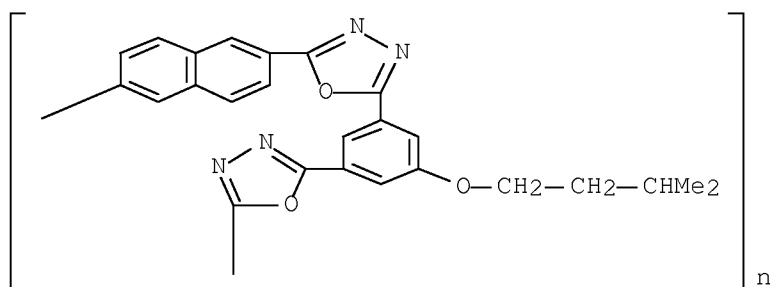
RN 688062-66-0 HCAPLUS

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(1,1-dimethylethyl)-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl[5-(3-methylbutoxy)-1,3-phenylene]] (9CI) (CA INDEX NAME)

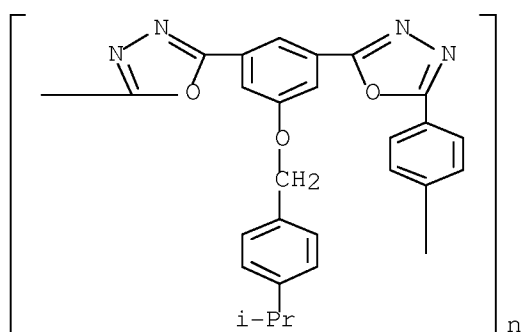


RN 688062-69-3 HCAPLUS

CN Poly[1,3,4-oxadiazole-2,5-diyl[5-(3-methylbutoxy)-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-2,6-naphthalenediyl] (9CI) (CA INDEX NAME)



RN 690272-83-4 HCAPLUS
 CN Poly[1,3,4-oxadiazole-2,5-diyl[5-[[4-(1-methylethyl)phenyl]methoxy]-1,3-phenylene]-1,3,4-oxadiazole-2,5-diyl-1,4-phenylene] (9CI) (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Hofer-Gesellschaft Zur	2000			WO 0014144 A1	HCAPLUS
Hofer-Gesellschaft Zur	2000			EP 1109851 A1	HCAPLUS
Hofer-Gesellschaft Zur	2000			JP 2002524596 A	
Korea Institute Of Scie	2003			JP 200364003 A	
Korea Institute Of Scie	2003			US 200391859 A1	
Unlax Corp	2001			WO 0177203 A2	HCAPLUS
Unlax Corp	2001			EP 1274760 A2	HCAPLUS
Unlax Corp	2001			JP 2003530476 A	

L53 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:23744 HCAPLUS Full-text

DN 138:238509

TI A new class of aromatic poly(1,3,4-oxadiazole)s and poly(amide-1,3,4-oxadiazole)s containing (naphthalenedioxy)diphenylene groups

AU Hsiao, Sheng-Huei; Liou, Guey-Sheng

CS Department of Chemical Engineering, Tatung University, Taipei, 104, Taiwan

SO Polymer Journal (Tokyo, Japan) (2002), 34(12), 917-924

CODEN: POLJB8; ISSN: 0032-3896

PB Society of Polymer Science, Japan

DT Journal

LA English

AB Polyhydrazides and poly(amide-hydrazide)s having inherent viscosities of 0.31-1.17 dL g⁻¹ were prepared from two ether-naphthalene-dicarboxylic acids, 4,4'-(1,5-naphthalenedioxy)dibenzoic acid (1,5-NDA) and 4,4'-(2,3-naphthalenedioxy)dibenzoic acid (2,3-NDA) with terephthalic dihydrazide, isophthalic dihydrazide, and p-aminobenzhydrazide via the phosphorylation polycondensation reaction. Except for one example, the hydrazide polymers were essentially amorphous and readily soluble in polar organic solvents such as N-methyl-2-pyrrolidone (NMP) and N,N-dimethylacetamide (DMAC). They could be cast into transparent, flexible, and tough films with good mech. strengths from solution in DMAC. These hydrazide polymers exhibited glass-transition temps. (Tgs) in the range 179-190°C and could be thermally cyclodehydrated into the corresponding poly(1,3,4-oxadiazole)s and poly(amide-1,3,4-oxadiazole)s in the solid state at elevated temps. The oxadiazole polymers had Tgs of 228-242°C (by differential scanning calorimetry) and 10% weight loss temps. above 500°C, as revealed by thermogravimetric anal. in nitrogen or in air.

IT 502183-83-7P 502183-86-0P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (new class of aromatic poly(1,3,4-oxadiazole)s and poly(amide-1,3,4-oxadiazole)s containing (naphthalenedioxy)diphenylene groups)
 RN 502183-83-7 HCAPLUS
 CN Poly(1,3,4-oxadiazole-2,5-diyl-1,4-phenylene-1,3,4-oxadiazole-2,5-diyl-1,4-phenyleneoxy-1,5-naphthalenediyl-1,4-phenylene) (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RN 502183-86-0 HCAPLUS
 CN Poly(1,3,4-oxadiazole-2,5-diyl-1,3-phenylene-1,3,4-oxadiazole-2,5-diyl-1,4-phenyleneoxy-1,5-naphthalenediyl-1,4-phenylene) (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Cassidy, P	1980		179	Thermally Stable Pol	
Connell, J	1992			US 5118781	HCAPLUS
Frazer, A	1964	2	1157	J Polym Sci, A	HCAPLUS
Frazer, A	1964	2	1171	J Polym Sci, A	
Gebben, B	1989	46	29	J Membr Sci	HCAPLUS
Gomes, D	2001	42	851	Polymer	HCAPLUS
Hedrich, J	1992	33	3375	Polymer	
Hensema, E	1994	32	513	J Polym Sci, Part A:	HCAPLUS
Hensema, E	1994	32	527	J Polym Sci, Part A:	HCAPLUS
Higashi, F	1980	18	1639	J Polym Sci, Polym C	HCAPLUS
Higashi, F	1980	18	2905	J Polym Sci, Polym C	HCAPLUS
Hsiao, S	1997	35	3385	J Polym Sci, Part A:	HCAPLUS
Hsiao, S	1998	36	1847	J Polym Sci, Part A:	HCAPLUS
Hsiao, S	1999	37	1169	J Polym Sci, Part A:	HCAPLUS
Hsiao, S	1997	198	2153	Macromol Chem Phys	HCAPLUS
Hsiao, S	1997	198	819	Macromol Chem Phys	HCAPLUS
Hsiao, S	1997	30	165	Macromolecules	HCAPLUS
Huang, W	1999	32	118	Macromolecules	HCAPLUS
Iwakura, Y	1965	3	45	J Polym Sci, A	HCAPLUS
Janietz, S	2002	203	427	Macromol Chem Phys	HCAPLUS
Janietz, S	2002	203	433	Macromol Chem Phys	HCAPLUS
Lee, Y	1999	105	185	Synth Met	HCAPLUS
Maglio, G	1998	25	6407	Polymer	
Nanjan, M	1988	12		Encyclopedia of Poly	
Preston, J	1978	65	13	J Polym Sci, Polym S	HCAPLUS
Saegusa, Y	1997	198	1799	Macromol Chem Phys	HCAPLUS
Schulz, B	1996	30	353	React Funct Polym	HCAPLUS
Song, S	1999	32	1482	Macromolecules	HCAPLUS
Thaemlitz, C	1992	33	3278	Polymer	HCAPLUS
Yang, H	1989		315	Aromatic High-Streng	
Yu, W	1998	31	4838	Macromolecules	HCAPLUS

L53 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:387992 HCAPLUS [Full-text](#)

DN 137:69913

TI Effect of carbazole-oxadiazole excited-state complexes on the efficiency of dye-doped light-emitting diodes

AU Jiang, Xuezhong; Register, Richard A.; Killeen, Kelly A.; Thompson, Mark E.; Pschenitzka, Florian; Hebner, Thomas R.; Sturm, James C.

CS Department of Chemical Engineering, Princeton University, Princeton, NJ, 08544, USA

SO Journal of Applied Physics (2002), 91(10, Pt. 1), 6717-6724

CODEN: JAPIAU; ISSN: 0021-8979

PB American Institute of Physics
 DT Journal
 LA English
 AB

Interactions between hole-transporting carbazole groups and electron-transporting 1,3,4-oxadiazole groups were studied by photoluminescence and electroluminescence (EL) spectroscopy, in blends of poly(N-vinylcarbazole) with 2-tert-butylphenyl-5-biphenyl-1,3,4-oxadiazole (PVK:PBD) and in random copolymers with carbazole and oxadiazole groups attached as side chains. Different excited-state complexes form in the blends, which exhibit exciplexes, and in the copolymers, which manifest electroplexes, due to topol. constraints on the position of carbazole and oxadiazole units in the polymer. Both types of complex red shift the EL spectra of the matrixes compared with pure PVK homopolymer, although the shift is significantly greater for the electroplex. The presence of these complexes has a profound effect on the external quantum efficiency of dye-doped organic light-emitting diodes employing the blends or copolymers as matrixes, as it strongly affects the efficiency of Forster energy transfer from the matrix to the dye. Single-layer devices doped with either Coumarin 47 (C47), Coumarin 6 (C6), or Nile Red (NR) were compared. Among the three dye-doped PVK:PBD devices, C6 doping yields the highest efficiency, while NR doping produced the most efficient copolymer devices, consistent with the degree of overlap between the EL spectrum of the matrix material and the absorption spectrum of the dye.

IT 292869-72-8

RL: PRP (Properties)

(effect of carbazole-oxadiazole excited-state complexes on efficiency of dye-doped light-emitting diodes)

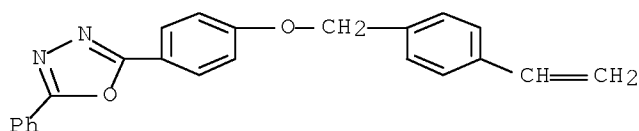
RN 292869-72-8 HCAPLUS

CN 1,3,4-Oxadiazole, 2-[4-[(4-ethenylphenyl)methoxy]phenyl]-5-phenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 292869-70-6

CMF C23 H18 N2 O2



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Antoniadis, H	1998	73	3055	Appl Phys Lett	HCAPLUS
Baldo, M	1998	395	151	Nature (London)	HCAPLUS
Blom, P	1998	51	479	Philips J Res	HCAPLUS
Bulovi, V	1998	287	455	Chem Phys Lett	
Burkhart, R	1983	16	820	Macromolecules	HCAPLUS
Burroughes, J	1990	347	539	Nature (London)	HCAPLUS
Cao, Y	1999	397	414	Nature (London)	HCAPLUS
Forster, T	1948	2	55	Ann Phys	HCAPLUS
Gebler, D	1998	108	7842	J Chem Phys	HCAPLUS
Giro, G	2000	318	137	Chem Phys Lett	HCAPLUS
Granlund, T	1997	81	8097	J Appl Phys	HCAPLUS
Greenham, N	1994	6	491	Adv Mater	HCAPLUS
Gross, M	2000	405	661	Nature (London)	HCAPLUS
Hebner, T	1998	73	1775	Appl Phys Lett	HCAPLUS
Ho, P	2000	404	481	Nature (London)	HCAPLUS
Hu, B	1994	76	2419	J Appl Phys	HCAPLUS
Jiang, X	2000	12	2542	Chem Mater	HCAPLUS
Jiang, X	1997	85	175	Synth Met	
Johnson, G	1975	62	4697	J Chem Phys	HCAPLUS
Johnson, G	1995	67	175	Pure Appl Chem	HCAPLUS
Kalinowski, J	2000	76	2352	Appl Phys Lett	HCAPLUS
Kalinowski, J	2000	33	2379	J Phys D	HCAPLUS
Kido, J	1993	63	2627	Appl Phys Lett	HCAPLUS
Kido, J	1995	67	2281	Appl Phys Lett	HCAPLUS
Lee, Y	2001	79	308	Appl Phys Lett	HCAPLUS
Madigan, C	2001	624	211	Mater Res Soc Symp P	HCAPLUS
Osaheni, J	1994	27	739	Macromolecules	HCAPLUS
Parker, I	1999	85	2441	J Appl Phys	HCAPLUS
Partridge, R	1983	24	755	Polymer	HCAPLUS

Peng, Z	1998	10	680	Adv Mater	HCAPLUS
Pschenitzka, F	1999	74	1913	Appl Phys Lett	HCAPLUS
Pschenitzka, F	2001	78	2584	Appl Phys Lett	HCAPLUS
Pschenitzka, F	2001	79	4354	Appl Phys Lett	HCAPLUS
Rippen, G	1980	52	165	Chem Phys	HCAPLUS
Sato, H	1997	8	454	Polym Adv Technol	HCAPLUS
Shim, H	1997	30	7749	Macromolecules	HCAPLUS
Shoustikov, A	1998	4	3	IEEE J Sel Top Quant	HCAPLUS
Stampor, W	2000	256	351	Chem Phys	HCAPLUS
Tamoto, N	1997	9	1077	Chem Mater	HCAPLUS
Tang, C	1987	51	913	Appl Phys Lett	HCAPLUS
Tao, X	1997	71	1921	Appl Phys Lett	HCAPLUS
Wang, J	1998	10	230	Adv Mater	HCAPLUS
Wang, J	2001	123	6179	J Am Chem Soc	HCAPLUS
Wang, Y	1997	44	1263	IEEE Trans Electron	HCAPLUS
Wu, C	1997	70	1348	Appl Phys Lett	HCAPLUS
Wu, C	1997	44	1269	IEEE Trans Electron	HCAPLUS

L53 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:65909 HCAPLUS Full-text

DN 134:252739

TI Synthesis and characterization of new poly(arylene ether
1,3,4-oxadiazole)s based on dihydroxynaphthalene isomers

AU Bottino, Francesco A.; Di Pasquale, Giovanna; Pollicino, Antonino

CS Dipartimento di Metodologie fisiche e Chimiche per l'Ingegneria, Facolta
di Ingegneria, Universita di Catania, Catania, 95125, Italy

SO Polymer Bulletin (Berlin) (2000), 45(4-5), 345-350

CODEN: POBUDR; ISSN: 0170-0839

PB Springer-Verlag

DT Journal

LA English

AB A series of new poly(arylene ether 1,3,4-oxadiazole)s has been obtained starting from a
difluorosubstituted monomer containing 1,3,4-oxadiazole rings and some dihydroxynaphthalene
isomers. The polymers have been prepared by polycondensation in solution and have been obtained
in quant. yield. They had inherent viscosity from 0.2 to 0.82 dL/g, showed good thermal stability
(10% weight loss temps. in nitrogen and air were above 460 and 450°C, resp.) and high glass
transition temps. (in the range of 197-232°). The polymers were characterized by elemental and IR
analyses, GPC and wide angle X-ray diffraction.

IT 331462-87-4P 331462-90-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(synthesis and characterization of poly(arylene ether

1,3,4-oxadiazole)s based on dihydroxynaphthalene isomers)

RN 331462-87-4 HCAPLUS

CN Poly[1,3,4-oxadiazole-2,5-diyl-1,4-phenyleneoxy-1,4-phenylene-1,3,4-
oxadiazole-2,5-diyl-1,4-phenyleneoxy-1,5-naphthalenediylloxy-1,4-phenylene]
(9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RN 331462-90-9 HCAPLUS

CN Poly[1,3,4-oxadiazole-2,5-diyl-1,4-phenyleneoxy-1,4-phenylene-1,3,4-
oxadiazole-2,5-diyl-1,4-phenyleneoxy-2,3-naphthalenediylloxy-1,4-phenylene]
(9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Attwood, T	1981	22	1096	Polymer	HCAPLUS
Bottino, F	1995	31	35	Eur Polym J	HCAPLUS
Bottino, F	1995	33	843	J Polym Sci Part A P	HCAPLUS

Bottino, F	1996	34	1305	J Polym Sci Polym Ch	HCAPLUS
Bottino, F	1999	20	405	Macromol Rapid Commu	HCAPLUS
Bottino, F				Macromolecules (subm	
Bottino, F	1998	39	3199	Polymer	HCAPLUS
Cassidy, P	1980			Thermally Stable Pol	
Colquhoun, H	1988	29	1902	Polymer	HCAPLUS
Connell, J	1991	29	1667	J Polym Sci Part A:	HCAPLUS
Connell, J	1992	33	3507	Polymer	HCAPLUS
Critchley, J	1983			Heat-Resistance Poly	
Cummings, D	1991	A28	793	I Macromol Sci Chem	HCAPLUS
Hedrick, J	1988	21	1883	Macromolecules	HCAPLUS
Hergenrother, P	1988	7	640	Encyclopedia of Poly	
Kim, K	1992	46	1	J Appl Polym Sci	HCAPLUS
Kricheldorf, H	1984	25	1151	Polymer	HCAPLUS
Lucas, M	1993	31	2179	J Polym Sci Part A:	HCAPLUS
Rose, J	1974	15	456	Polymer	HCAPLUS
Saegusa, Y	1993	194	777	Makromol Chem	HCAPLUS
Staniland, P	1992	33	1976	Polymer	HCAPLUS
Stille, J	1981	14	870	Macromolecules	HCAPLUS
Tullos, G	1991	24	6059	Macromolecules	HCAPLUS
Ueda, M	1987	20	2675	Macromolecules	HCAPLUS
Ueda, M	1990	23	1611	Macromolecules	

L53 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:507058 HCAPLUS Full-text

DN 133:238675

TI Statistical Copolymers with Side-Chain Hole and Electron Transport Groups for Single-Layer Electroluminescent Device Applications

AU Jiang, Xuezhong; Register, Richard A.; Killeen, Kelly A.; Thompson, Mark E.; Pschenitzka, Florian; Sturm, James C.

CS Department of Chemical Engineering, Princeton University, Princeton, NJ, 08544, USA

SO Chemistry of Materials (2000), 12(9), 2542-2549

CODEN: CMATEX; ISSN: 0897-4756

PB American Chemical Society

DT Journal

LA English

AB New statistical copolymers with bipolar carrier transport abilities were synthesized through free radical copolymn. of N-vinylcarbazole (NVK, hole-transport monomer) with either of two substituted styrenes containing oxadiazole groups, which serve as electron transport monomers: 2-phenyl-5-[4-[(4-vinylphenyl)methoxy]phenyl]-1,3,4-oxadiazole, PVO, and 2-(4-tert-butylphenyl)-5-[4-[(4-vinylphenyl)methoxy]phenyl]-1,3,4-oxadiazole, BVO. In all cases, the charge transport moieties exist in side groups, and carrier transport proceeds by hopping. Copolymn. yields homogeneous statistical copolymers of widely variable composition and thus tunable carrier transport properties; the copolymers are transparent in the visible region and form good films. Compared with systems where the oxadiazole units are incorporated by simply blending a small-mol. oxadiazole into poly(N-vinylcarbazole), the glass transition temps. of these copolymers are high, and there is no possibility for the oxadiazole units to phase-sep. through recrystn. The glass transition temps. for the copolymers show pos. deviations from a harmonic mixing rule, suggesting some interaction between the NVK and BVO residues; however, blends of the homopolymers show limited miscibility at best, indicating that copolymn. is essential to produce a homogeneous material. Incorporating the oxadiazole units reduces the hole transport ability of these copolymers somewhat relative to NVK homopolymer, but single-layer dye-doped devices emitting blue, green, and orange light fabricated from these copolymers all showed good efficiency.

IT 292869-72-8P

RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(statistical vinyl copolymers with side-chain carbazole and oxadiazole hole and electron transport groups for single-layer electroluminescent devices)

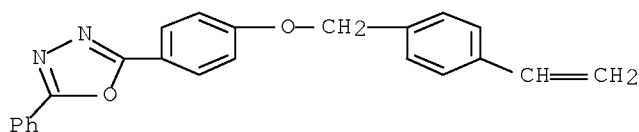
RN 292869-72-8 HCAPLUS

CN 1,3,4-Oxadiazole, 2-[4-[(4-ethenylphenyl)methoxy]phenyl]-5-phenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 292869-70-6

CMF C23 H18 N2 O2



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bao, Z	1998	10	1201	Chem Mater	HCAPLUS
Bettenhausen, J	1996	8	507	Adv Mater	HCAPLUS
Brocks, G	1997	106	6418	J Chem Phys	HCAPLUS
Buchwald, E	1995	7	839	Adv Mater	HCAPLUS
Burroughes, J	1990	347	539	Nature	HCAPLUS
Cacialli, F	1995	75	161	Synth Met	HCAPLUS
Chen, Z	1999	32	4351	Macromolecules	HCAPLUS
Chung, S	1998	10	1112	Adv Mater	HCAPLUS
Fineman, M	1950	5	259	J Polym Sci	HCAPLUS
Greenham, N	1993	365	628	Nature	HCAPLUS
Hart, R	1961	47	143	Makromol Chem	HCAPLUS
Hebner, T	1998	73	1775	Appl Phys Lett	HCAPLUS
Heischkel, Y	1998	199	869	Macromol Chem Phys	HCAPLUS
Jiang, X	1997	87	175	Synth Met	HCAPLUS
Kido, J	1993	63	2627	Appl Phys Lett	HCAPLUS
Kido, J	1995	67	2281	Appl Phys Lett	HCAPLUS
Kido, J	1996	1	161	Chem Lett	HCAPLUS
Li, X	1995	7	898	Adv Mater	HCAPLUS
Pai, D	1970	52	2285	J Chem Phys	HCAPLUS
Pei, Q	1995	7	1568	Chem Mater	HCAPLUS
Peng, Z	1998	10	680	Adv Mater	HCAPLUS
Peng, Z	1998	10	2086	Chem Mater	HCAPLUS
Pommerehne, J	1995	7	551	Adv Mater	HCAPLUS
Rempp, P	1991	1	1	Polymer Synthesis, 2	
Strukelj, M	1995	265	1969	Science	
Tang, C	1987	51	913	Appl Phys Lett	HCAPLUS
Wu, C	1996	69	3117	Appl Phys Lett	HCAPLUS
Wu, C	1997	70	1348	Appl Phys Lett	HCAPLUS
Wu, C	1997	44	1269	IEEE Trans Electron	HCAPLUS

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      E HIROSE/CO

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L40 STR
L41 34 S L40 SAM SUB=L21
L42 715 S L40 FUL SUB=L21
SAV TEMP L42 NELSON532C/A
L43 128 S L42 AND 1/NC
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SEL RN 6-9 12-15
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